

Claims

This listing of claims replaces all prior versions and listings of claims in the application.

Please amend the claims as follows:

1-7. (previously canceled)

8. (currently amended) A method comprising:

acquiring a first image and a second image of an organ inside a body, the first image being acquired at one point of a body cycle and said second image being acquired at another point of the body cycle;

interpolating between or extrapolating from the first and second images to generate at least one interpolated or extrapolated image of the organ or structure inside the body which is correlated to a point in the body cycle that is different than the point in the body cycle of the first and second images;

generating an image of an organ or structure inside a body which is substantially correlated to a point in a bodily cycle, the image being generated by interpolating between or extrapolating from at least two other images of the organ structure taken at other points of the body cycle;

spatially registering the a representation of the probe with the interpolated or extrapolated image; and

simultaneously displaying the interpolated or extrapolated image and a the representation of a probe, the interpolated or extrapolated image and representation of probe registered to substantially the same point in the bodily cycle;
wherein registering a representation of the probe comprises acquiring multiple locations of the probe at a recurring time that corresponds to the point of the bodily cycle and using the location of the probe to display the representation of the probe at the recurring point in the bodily cycle.

9. (previously canceled)
10. (currently amended) The method of claim 8, wherein the images is are acquired using computed tomography, magnetic resonance, or ultrasound.
11. (original) The method of claim 8, wherein the organ or structure inside the body comprises a heart and the bodily cycle is a cardiac cycle.
12. (original) The method of claim 8, wherein the probe is configured to sense the electrical properties of the organ or structure inside the body.
13. (currently amended) The method of claim 8, wherein the images was were acquired prior to the probe being located inside the body.
14. (currently amended) The method of claim 8, wherein the acquiring step comprises storing the images on a computer readable medium.
15. (currently amended) A method comprising:
acquiring a first image and a second image of an organ inside a body, the first image being acquired at one point of a body cycle and the second image being acquired at another point of the body cycle;

interpolating between or extrapolating from the first and second images to generate at least one interpolated or extrapolated image of the organ or structure inside the body which is correlated to a point in the body cycle that is different than the point of body cycle of the first and second images;

generating an image of an organ or structure inside a body which is substantially correlated to a point in a bodily cycle, the image being generated by interpolating between and/or extrapolating from at least two other images of the organ or structure taken at other points of the bodily cycle;

registering a representation of a probe which is inside the body with the interpolated or extrapolated image, the representation of the probe and the interpolated or extrapolated image being registered to the point in the bodily cycle;

wherein registering a representation of the probe comprises acquiring multiple locations of the probe at a recurring point in the bodily cycle and using the multiple locations of the probe to display the representation of the probe at the recurring point in the bodily cycle.

16. (currently amended) The method of claim 15, further comprising spatially registering a representation of the probe with the interpolated or extrapolated image to create a registered image.

17. (original) The method of claim 15, wherein the organ or structure inside the body comprises a heart, the method further comprising simultaneously displaying the registered image, the registered representation of the probe, and a map of electrical properties of the heart.

18. (original) The method of claim 15, wherein the organ or structure comprises a heart and the bodily cycle is a cardiac cycle.

19. (currently amended) The method of claim 15, wherein the images ~~is~~ are acquired using computed tomography, magnetic resonance, or ultrasound.

20-27. (previously canceled)